Wetlands
Thematic Instructional Sequence

Activity	Concept
BUILD A WETLAND 3 sessions	*• Estuaries are special wetlands where salt and fresh water mix.* *• Estuaries include open water, mud flats and salt marshes.* *• Many different kinds of organisms live in an estuary. Each organism lives in a particular part of the estuary.*
Transition: We've learned about different organisms of the wetlands and estuaries, including how they are adapted to this habitat and how they interact with each other. Now let's learn a song about the web of life that supports the wetland habitat and the water that makes up the wetland.	
ESTUARY LIFE 3 sessions	*• Estuaries are formed where fresh water from a river mixes with salty ocean water.* *• Estuaries provide habitat for many different types of living things.* *• Human impact may harm estuary communities.*
Transition: We have learned more details about some of the organisms that live in the "salty and fresh" water of the estuary and how people sometimes harm this habitat. Now let's find out more about how scientists work as we observe one wetland organism very carefully.	
OYSTER BEDS 3 sessions	*• Scientists need to make careful observations and communicate them clearly in order to learn about the natural world.* *• Poetry offers a way for people to communicate their thoughts and feeling s about the special qualities and values of the ocean habitats.*
Transition: Now is our chance to get to know another organism of the wetland as we continue being scientists. Let's learn about clams on the outside and on the inside to discover more about the parts of its body and how it makes its living in the mud.	

CLAMS INSIDE AND OUT 3 sessions	*• Each animal has special body parts and ways of behaving, which are adaptations to survive and be successful in their habitat.* *• Scientists use dissection as a way of learning more about an animal's body parts and how the parts work together. These body parts are called structures.*
Transition: Now that we have looked very closely at the structures of a clam and how it survives in its habitat, let's check out another very different animal living in a wetland. This time we will have the chance to learn about a living creature and observe how it moves. As scientists we will ask questions and then do an investigation to try to answer our questions.	
CRAYFISH INVESTIGATIONS 3–5 sessions	*• Crayfish have many adaptations to survive and thrive in a wetland habitat.* *• Scientists learn about the world through an inquiry process.* *• Inquiry science consists of making observations about the world, asking questions about the observations, doing investigations to discover answers to questions and making new observations leading to new explanations and questions.* *• Scientists communicate about their own and their peers' investigations and explanations.*
Transition: The tides bring salt water to wetlands from the ocean. Rivers bring fresh water to wetlands from the land. Now we are going to do another investigation to see what happens to salt and fresh water when they meet.	
SALINITY CURRENTS 3 sessions	*• Salinity is a measure of the amount of salt dissolved in a liquid.* *• Fresh water will float on top of saltier water.* *• Fresh water is less dense than salt water.* *• Salinity currents can form when fresh water from the land and salt water from the ocean meet in an estuary.*
Transition: Now we are ready to put together everything we have learned about a wetland and the organisms that live there. Let's pretend that we are	

all different types of birds living and feeding in a wetland. Which type of bird has the very best beak for feeding on organisms living in the wetland? Which bird is the most well adapted? Now is our chance to find the answers to those questions.	
BIRD BEAK BUFFET 3 sessions	*• Different types of shorebirds can feed together in one area because each type is adapted to feed on different types of prey. (This is called resource partitioning.)* *• Adaptations are features or behaviors that improve an organism's chance for survival.* *• Scientists often use math when they gather data about animals. Graphing the data helps us to discover patterns and explain observations.*
Transition:	